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## Perceived Instrumental Support Exchanges in Relationships Between Elderly Parents and Their Adult Children: Normative and Structural Explanations

*If the norm of filial responsibility is apparent, children should give relatively more instrumental support to their parents. Structural circumstances of adult children, such as being employed or having young children, and of their parents, such as having small families, influence the amount of instrumental support the parents receive. Data are from a sample of 365 adults and 634 of their children. The higher the filial responsibility of both parent and children, the more support the parent received. Mothers, old parents, parents in need of support, and parents without a partner received relatively more support. The structural circumstances of the children do not have any effect on the support that parents receive. Reciprocity is an important determinant of the support that the parent receives.*

Previous research (e.g., Mancini & Blieszner, 1989) has proved that the alienation of people from their family may be fiction. Actually, there are a number of support exchanges between parents and

their adult children (Dykstra & Knipscheer, 1995). The amount of support exchanged in this type of relationship is generally greater than the amount of support exchanged between any other kin (Hanson & Sauer, 1985). Moreover, when people become old and need support, it is generally their children who provide support, particularly if the level of support provided by the partner is insufficient (Stoller, 1994) or if there is no partner.

In this study, we focus on norms and structures in parent-child relationships. We examine the influence that they exert on instrumental support exchanges. The framework of intergenerational solidarity is a way to understand relationships between parents and their children (Lee, Netzer, & Coward, 1994). We use three dimensions of intergenerational solidarity (Bengtson & Roberts, 1991): the functional dimension (exchange of instrumental support), the normative dimension (expectations of individual obligations to the family), and the structural dimension (opportunities for family interaction). As Lee et al. have noted, the framework of intergenerational solidarity has rarely been applied to support exchanges, and associations between the functional and normative dimension have not been examined. Although Bengtson and Roberts treat all dimensions equally, we examine whether the normative and structural dimensions determine the amount of instrumental support that is given. Our main question is: Are adult children's and parents'

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norms and the structural circumstances of adult children determinants of the instrumental support given to parents?

We hypothesize that norms determine the number of instrumental support exchanges in relationships between parents and their children. According to Hanson and Sauer (1985) and Stein (1993), children and parents have expectations about filial responsibilities and share the view that children are obligated to provide support if their parents need it. This view is based, in part, on the fact that parents gave support to their children in the past and the children should now offer support in return (Dwyer, Lee, & Jankowski, 1994). Seelbach (1984) argues that young and middle-aged children are expected to help their aging parents and give priority to their parents' needs over their own. However, the results of a study conducted by Brody, Johnsen, and Fulcomer (1984) among women of three generations show that they sharply distinguish among the services they expect children to perform for their parents. There is a strong commitment on the part of children to help their parents if the parents need support. However, a situation in which various generations live together is not preferred by either generation. Nor does the older generation prefer help from their adult children with expenses. Nor do they expect that children adjust their family activities, probably because of the widespread desire not to be a burden. However, the older generation preferred that children—especially unmarried ones—adjust their work schedule. Although feelings of commitment and filial responsibility are the main force determining the amount of instrumental support given by children to their parents, there may also be other reasons why children give support. The children may want to show their own children how they want to be treated when they are old and need support (Hess & Waring, 1980; Stark, 1995).

We hypothesize that support exchanges between parents and their children are also determined by opportunity. Children do not always have an opportunity to give support, even if the norms are there. Although the parent-child relationship is a long-term relationship, this does not mean it is equally intense over time. It is weakest if children have their own family and work responsibilities (Shulman, 1975), and obligations to parents may often compete with other obligations of daily life. Women's growing labor-force participation makes it difficult for adult daughters, traditionally the care providers for parents, to give their parents support (Dwyer & Coward, 1991). It is more difficult for

children, particularly daughters, to give support if they have to care for their own offspring, certainly if their children are young. Structural relationship characteristics that can positively affect the support given by children include contact frequency and geographic proximity (Rossi & Rossi, 1990).

In large families, it is easier to spread the obligation of giving support among the children than it is in small families. However, having more children strengthens relationships because other children can mediate the relationship between a specific child and the parent (Kaufman & Uhlenberg, 1998). Many parents live to an older age, so that more parents have elderly children (Hanson & Sauer, 1985). These children might need support themselves and thus have fewer opportunities to support their elderly parents.

Many studies of support in parent-child relationships only focus on support given to elderly parents. In our opinion, it is not appropriate to examine the support given by children without taking into account the support given by parents. People usually aspire to relationships where receiving support is balanced by giving support (Gouldner, 1960). We expect that the more support parents give their children, the more support they will receive. According to Bengtson and Kuypers (1985), one of the things elderly people fear most is being a burden to their families. Elderly people can thus be expected to demonstrate their independence by giving their children support, even though this may conflict with their finding it increasingly difficult to give support and needing more support themselves.

Just as it takes two parties to keep the support exchanges in balance, it also takes two parties to report on the giving and receiving of support. In general, both parties tend to report giving more support than they receive. Antonucci and Israel (1986) used data of principal and network respondents and observed that there was only a moderate degree of congruence between the reports on support given by one party and received by the other. Another method is used in studies based on representative samples. If the amount of support given is not equal to the amount of support received in a representative sample, the data may be biased. Using this method, Felling, Fiselier, and van der Poel (1991) also observed that people report giving more support than they receive. We have reports from both children and parents. To what extent do our data on perceived exchanges confirm the overestimation of giving and the underestimation of receiving? Do these differences influence the outcomes of our previous research questions?

## METHOD

*Respondents*

In 1992–1993, 365 adults and 634 of their adult children participated in a study on characteristics of their personal networks. The parents, 191 men and 174 women, were between 55 and 89 years old (average 69.3;  $SD = 8.9$ ). Of the parents, 216 lived with a spouse or partner, 31 lived with a spouse or partner and with children, 101 lived alone, 8 lived with children, and 9 lived in a home for the elderly (3 of whom lived there with their spouses). The parents had an average of 9.0 years of education ( $SD = 3.1$ ). Only 54 were employed, 33 for 28 hours a week or more.

The parents comprised a probability sample, with the childless ones excluded, from another sample. The initial sample consisted of 4,494 respondents with whom face-to-face interviews were conducted in 1992 (Knipscheer, de Jong Gierveld, van Tilburg, & Dykstra, 1995). The initial sample was stratified, with equal numbers of men and women born from 1903 to 1937, and was randomly taken from the registers of 11 municipalities in the Netherlands. The response was 62%.

In the beginning of the initial interview, all the children of the 365 parents were identified, that is, 1 to 11 children per older adult (total 1,109; average 3.0;  $SD = 1.7$ ,  $n = 365$ ). Of these 1,109 children, 153 (14%) were not identified as personal network members by their parents. To identify children as network members, the following question was posed: "Tell me the names of the children you have frequent contact with and who are important to you." The definitions of "frequent" and "important" were left to the respondent. Only adult children were included in the network, and consequently, three children younger than 18 were excluded. A logistic regression analysis showed that children with whom contact was more frequent ( $p < 0.001$ ) and daughters ( $p < 0.05$ ) had a higher chance of being included in the network, and age, children's partner status, children's employment status, and traveling time are not of importance ( $p > 0.05$ ). Of the 1,109 children, 188 (17%) were identified as network members but did not satisfy the criteria for being included in the follow-up data collection since they were not among the parents' eight network members with the highest frequency of contact.

Questionnaires were mailed to the parents and their selected children. The data collection started an average 4.9 months ( $SD = 1.7$ ) after the initial interviews at which the parents' networks were

delineated. Between the initial interviews and the mailing of the questionnaires, one child died. Data about the instrumental support exchanges between the parents and their children are available from both parties for 634 relationships (i.e., with 57% of the 1,109 identified children). For the other 133 relationships (12%), data from one or both parties are missing for various reasons, such as parents' refusal to ask their children to take part in the study ( $n = 33$ ), lack of response by the child ( $n = 97$ ), or too many missing data ( $n = 3$ ). The results of a logistic regression analysis ( $n = 767$ ) show that data are more often available about relationships with daughters ( $p < 0.05$ ); the children's age, partner, and employment status, sharing the household with the parent, contact frequency, traveling time, intensity of instrumental and emotional support given and received, and negative interactions are not of importance ( $p > 0.05$ ).

The total number of children included in the analyses is 634, comprising 293 sons and 341 daughters. These children were selected from 1,109 children. At the family level, 176 of the parents had one child, 127 had two, 50 had three, 8 had four, 2 had five, and 2 had six children included in the analyses. On the average, a parent had 1.7 children in the study ( $SD = 0.9$ ,  $n = 365$ ). Forty-eight parents had one child; all these children were in the study. There were 119 parents with two children; 51 had one child and 68 had both children in the study. Of the 89 parents with three children, 35 had one child, 27 had two children, and 27 had all children in the study. Of the 56 parents with four children, 23 had one child, 12 had two, 15 had three, and 6 had all children in the study. Finally, of the 53 parents with five to eleven children, 19 had one child, 20 had two, 8 had three, 2 had four, 2 had five, and 2 had six children in the study. To sum up, the larger the actual family size, the smaller the proportion of children per family included in the analyses; the respective proportions are 100%, 79%, 64%, 52%, and 35% for the one-child families to families with five children or more.

The children's ages varied from 18 to 66 (average 37.9;  $SD = 9.0$ ). Of the children, 87 lived alone, 483 lived with a partner, and 64 were in another type of multiperson household. Of the parents' children, 243 had one or more children of their own aged 15 or younger in the household, 79 only had older children in the household, and 312 did not have children or did not live with their children; 17 children who lived with their own children did not live with a partner; and 41 children were part of a household of which their parent was

also a member. The children had an average of 11.6 years of education ( $SD = 2.8$ ), and 477 (75%) of the children were employed (375 full-time).

### Measurements

The mailed questionnaires were completely personalized. The names of the children and other network members were included on the list for the parents, and the names of the parent and the other children were on the list for the children. Three questions were posed about instrumental support received: "How often in the past year did the following people help you with daily chores in and around the house, such as preparing meals, cleaning the house, transportation, small repairs, or filling in forms?"; "How often during the past year did the following people give you advice (e.g., on an important decision or on filling out forms)?" and "How often during the past year did the following people give you help when you needed it (e.g., when you were ill)?" Three similar questions were asked about instrumental support given. The response options were "never," "seldom," "sometimes," and "often," and these responses were scored on a scale from 1 to 4. For each relationship, four sum scores of instrumental support were computed, two based on answers provided by the parents (one for support received and one for support given) and two based on answers provided by the children. The scores of the four scales range from 3 to 12. The four scales are homogeneous (Loevinger's coefficient of hierarchical homogeneity  $H \geq 0.55$ ) and reliable ( $p \geq 0.75$ ).

For the frequency of contact a single question was asked: "How often are you in touch with . . . ?" The response options were "less often than once a month," "once a month," "about twice a month," "weekly," and "daily." The answers were transformed into days a year. The contact frequency as reported by the children and the parents correlates at 0.71; the reports have been averaged. The average contact frequency was 113 days a year ( $SD = 122$ ), or about twice a week. Traveling time between the child and parent was asked in hours and minutes and scored in minutes. The traveling time reported by the parents, the time reported by the children, the distance in a straight line, traveling distance, and travel time by car, as obtained from public databases, correlate strongly ( $r > 0.81$ ); the reports have been averaged. The average traveling time was 45 minutes ( $SD = 102$ ).

Various measurements of characteristics of parents and children are available. A scale for the ca-

capacity to perform activities in daily life (ADL) was constructed as a sum score of four items: walking up and down stairs, walking for 5 minutes outdoors without resting, getting up from and sitting down in a chair, and getting dressed and undressed. The response options were "not at all," "only with help," "with a great deal of difficulty," "with some difficulty," and "without difficulty," with corresponding values of 1 to 5 assigned. The scale was homogeneous ( $H = 0.64$ ) and reliable ( $p = 0.87$ ). The range was 4 to 20; a higher score indicated a better capacity. The average of the children's scores was 19.9 ( $SD = .4$ ;  $n = 634$ ), very close to the maximum, and the average of the parents' scores was 18.7 ( $SD = 2.5$ ;  $n = 365$ ). Other data collections revealed that 71% of the parents ( $n = 314$ ) had a chronic disease and that 20% ( $n = 365$ ) died within 4 years. Analysis of the results of logistic regression analyses showed that parents' having a chronic disease was associated with their ADL capacity ( $R = -.20$ ) but not with their age. Furthermore, the death of the parents was more likely if they had a poor ADL capacity ( $R = -0.09$ ) or were older ( $R = 0.34$ ). For the parents' partners, data on their ADL capacity was self-reported, and the average score was 19.1 ( $SD = 2.0$ ;  $n = 264$ ).

Each child was asked to evaluate the need for support on the part of the parent and vice versa. The question was, "Do you think . . . needs support?" The response options were "scarcely," "some," and "very much," with corresponding values of 1 to 3. The children's estimation of their parents' need averaged 1.9 ( $SD = .7$ ), and the parents' estimation of their children's need was on the average 1.6 ( $SD = .7$ ). There were four statements on norms about the role of children and parents in giving support: "Children and parents ought to support each other," "Parents did a lot for their children in the past, so their children should give them support now," "Elderly parents now still mean a lot to their children, so they deserve to receive support from them," and "In a good relationship, it goes without saying that (adult) children do a great deal for their parent(s)." The response options were "no," "more or less," and "yes." The scores were ranged on a scale ( $H = 0.62$ ,  $p = 0.82$ ) from 4 to 12.

The educational level of subjects was measured in years and ranged from 5 to 18. The financial status was obtained from a commercial database. The information was based on several households sharing a postal code and has five categories (values 1 to 5): *minimum*, *low (under modal)*, *about modal* (Euro 20,000 net a year), *modal to twice modal*,

and *high* (more than twice the modal level). The urbanization level (den Dulk, van de Stadt, & Vliegen, 1992) was measured as the mean number of addresses per square kilometer in a circle with a radius of 1 km, and has been rearranged into five categories (values 1 to 5): *less than 500*; *between 500 and 1,000*; *between 1,000 and 1,500*; *between 1,500 and 2,000*; and *more than 2,000*. The aim was to measure the concentration of human activities. Statistics Netherlands provided this information, which was available for each postal code.

### Procedure

To explain the variance in instrumental support received by the parent in a relationship between a parent and a child, we used the technique of multi-level analysis (Hox & Kreft, 1994; Snijders, Spleen, & Zwaagstra, 1995). Children's relationships of the same parent will usually be more alike than relationships of different parents. Therefore, two levels of analysis were distinguished. The characteristics of the parents and their families are at the higher level, what we call the family level, and the characteristics of the children and the relationships were at the lower level, what we call the relationship level. Applying ordinary regression analysis to this kind of data set would violate the assumption of independence of error terms. One consequence would be that we would overestimate the number of degrees of freedom and consequently the significance of effects, leading to a number of spurious significances. However, the number of degrees of freedom is not the only subject of concern. Using ordinary regression analysis, effects of respondents with more children would dominate the effects since they have a relatively large number of representations on a lower level. The models were analyzed with ML3 software (Prosser, Rasbash, & Goldstein, 1991).

We distinguished two models, one with the support data provided by the parent as the dependent variable and one with the support data provided by the child as the dependent variable. For the data provided by the parents, the answers to the questions on receiving support constituted the dependent variable, and for the data provided by the children, the answers to the questions on giving support constituted the dependent variable. The explanatory variables in both models are the same. For example, in both models, the normative dimension is indicated by two variables, or answers about the statements on norms with respect to the roles of children and parents in giving sup-

port as given by the parent (parent's perspective) and as given by the child (child's perspective). However, there is one exception. For explaining the support received by the parent, the support given reported by the parent is used, and for explaining the support given by the child, the support received reported by the child is used.

Six variable sets are part of the regression equations, as follows. (1) According to the first hypothesis, norms about parent-child support exchanges are entered in the first step. (2) As controls for child and relationship characteristics, the characteristics of the parent are entered in the second step. These characteristics include gender, age, ADL capacity, support need, partner status, number of children, education level, financial status, and level of urbanization. For partner status, four categories were identified: not having a partner, having a partner with poor or moderate ADL capacity (score 16 or lower), having a partner with good ADL capacity (score 17–19), and, as a category of reference, having a partner with perfect ADL capacity (score 20). (3) The characteristics of the child include gender, age, ADL capacity, support need, living with the parent, living with a partner, living with children younger than 15, level of education, employment status (not employed, part-time employment, and full-time employment), financial status, and level of urbanization. (4) The relationship characteristics are contact frequency and traveling time. (5) To assess whether a child's gender in combination with other characteristics was of importance, we constructed three interaction terms: living with a partner, living with children younger than 15, and employment status. To assess the effect of gender and age composition of the relationship, cross-level interaction terms of parents' and children's gender and age were constructed. (6) Finally, we entered the support given by the parent into the equations. The support given is related to the support received and may be related to the norms and structural circumstances of the children.

The multilevel analyses led to regression equations that could be read as the product of an ordinary regression analysis. We computed standardized regression coefficients by running the multilevel analysis with standardized variables. We applied the forward modeling stepwise approach using an empty equation (containing only a constant) at the start and entered all the explanatory variables one by one into the equation. The dummy variables for partner status were entered as a block. There were two methods to evaluate the fit of a model in the multilevel analysis. The first focused on the signif-

ificance of the model change. Each equation was characterized by the  $-2 \log$  likelihood (deviance). The difference between the deviance of the successive equations is  $\chi^2$  distributed, with the number of added variables being degrees of freedom. Thus the significance of the model improvement can be evaluated after each step. The second method used the decrease in the unexplained variance (Snijders & Bosker, 1994). In each step, the variability of the dependent variable was estimated at each level of analysis. The sum of these variance components in the empty equation equaled the variance of the variable. The variance at both levels provided information on the ratio between variance between parents and variance in parents between relationships. By adding explanatory variables to the model, the variance decreased for either or both of the levels. Unlike ordinary regression analysis, the reduction in variance might be negative. The amount of decrease gave insight into the explanatory power of the equation at both levels, compared with an equation with fewer explanatory variables. The coefficients of the equations before the support given and the final equations are presented, together with the significance of the model improvement and the reduction of the variances for each step. The proportional reduction of these variances cannot be considered  $R^2$ -like measures. However, based on the reduction of these variances,  $R^2$ -like measures for each level were developed by Snijders and Bosker (1994). The computation of the  $R^2$ -like measures for each level took the variances at all the levels into account. For the higher-level computation, there was only a correction for the number of cases at the lower level for each case at the higher level. Since we had a small average number of children for each parent in our study, the  $R^2$  values for both levels were about equal.  $R^2$ -like measures for each level are presented for the final equations.

## RESULTS

We investigated whether there were any differences between the reports of the children and the parents on giving and receiving support. Mean scores and correlations on giving and receiving support in parent-child relationships are presented in Table 1. The averages are presented at the relationship and family levels. For the latter, for each parent, the average score across the parent-child relationships was computed, and this average was averaged across all the parents. The variance between the relationships of a parent is thus overlooked. All the correlations are moderate, indicating that there are differences between the reports. The children reported giving more support to the parents than the parents reported receiving from the children, indicating that the children overestimated the amount of support given, the parents underestimated the amount of support received, or both. Children might overestimate the support they give because they have various other time-consuming responsibilities. Under these circumstances, it can cost them a great deal of effort to give support to their parents, and combined with their other responsibilities, they may feel as though they are giving more support than is actually exchanged. The parents might expect to receive more support from their children than their children are able to give. In that case, the parents' disappointment may lead to an underestimation of the received support. A second reason may be that the parents want to emphasize their independence and thus report receiving less support than they actually have received. Similarly, children want to emphasize their helpfulness by reporting having given more support than they have actually given. A last reason may be that the parent fails to perceive every kind of support a child gives to a parent. We might then draw the conclusion that parents and

TABLE 1. DESCRIPTION OF INSTRUMENTAL SUPPORT RECEIVED AND GIVEN AND OF NORMS

	Report by Parent			Report by Child			<i>t</i>	<i>r</i>
	<i>n</i>	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>		
Support received by parent (3-12)								
At the relationship level	634	6.7	2.6	634	7.1	2.5	4.2*	0.50*
At the family level	365	6.9	2.5	365	7.3	2.3	3.3*	0.51*
Support given by parent (3-12)								
At the relationship level	634	6.2	2.5	634	6.4	2.7	1.6	0.35*
At the family level	365	6.3	2.5	365	6.5	2.5	1.5	0.38*
Child ought to give support to parent (4-12)								
At the relationship level				634	9.8	2.8		
At the family level	365	8.2	2.2	365	9.8	1.7	12.4*	0.17*

\* $p < 0.001$ .

children each have their own views of the amount of support given and received. In particular, children report giving more support than the parents report receiving. It is striking, though, that both parties report a lack of balance: the parents received more than the children received.

Table 1 shows the averages of the support norms. For children's norms, the averages are shown at both levels. Only at the family level can the significance of the differences between parents and children be tested. Parents and children both attach great importance to the norm that children ought to give support to their parents, as is witnessed by the high mean scores and the low standard deviations of scores from both parties. But on the average, the children score higher on the norm pertaining to giving support than the parents do. The lower score of the parents may illustrate that they do not want to be dependent on their children.

The results of the multilevel regression analyses are shown in Table 2. We describe two models. In Model 1, based on the parents' reports, the support received by the parents is the dependent variable. In Model 2, based on the reports by the children, the support given by the children is the dependent variable. It can be concluded from the variance decomposition of Model 1 that most of the variance is across parents (76%) and not across the various relationships of a parent (24%). In other words, parents do not distinguish strongly among their children: They report receiving and giving a more or less equal amount of support across all their children. The reverse is true for Model 2, where in the reports of the children, most of the variance is across the relationships of a parent (62%). Several children in one family each report providing different amounts of support.

For both models, two equations are presented. The second equation is the same as the first but with the support given by the parent added to it. First, we describe the variables in Equation 1 that either have a significant effect or significantly improve Model 1 or 2 or both. Second, we describe the differences in Equations 1 and 2 in Model 1 and Model 2. Last, we describe the differences between Model 1, based on the parents' reports, and Model 2, based on the children's reports.

Our first hypothesis is that norms affect the support exchanges between parents and children. The results show that the more attached the parents or children are to the norm that children ought to give support to parents, the more support the parents receive. The norms explain more variance at the family level than at the relationship level. This

seems to indicate that parents pass their norms on to their children. The cross-level interaction effect is not significant. We may accept our hypothesis that norms affect support exchanges.

The characteristics of parents have the following effects. Mothers receive significantly more support than fathers. The younger the parents and the better their ADL capacity, the less support they receive from their children. If parents require high support, as reported by the children, the parents receive more support from children. For partner status, parents who have no partner or who have a partner with a poor or moderate ADL capacity receive more support than parents with a partner with a perfect ADL capacity. We did not observe an effect with regard to family size.

Our second hypothesis is that instrumental support exchanges between parents and children are determined by the children's structural opportunities. We discuss two main effects. The first pertains to gender and the second to living with young children. Both effects need to be taken in association with the interaction of these two variables. Although we expected daughters to give more support to their parents, there is no main effect. The effect of the interaction of gender and living with young children is significant in the model using parents' reports, where it is not controlled for the support given by the parents. This effect indicates that daughters with young children give the most support (a deviation of the grand mean of +.3), followed by sons without young children (+.2), daughters without young children (–.0), and sons with young children (–.2). Thus, although we expected daughters with young children to give less support than other daughters, the opposite turned out to be the case. It should be noted, however, that the differences are not very large. Although we expected employed children, in particular employed daughters, to give less support than unemployed children would, there is no evidence of this. The larger the parent perceives the child's need for support to be, the more support the parent reports receiving. This is contrary to or expectations, and we discuss this point later. Older children give more support than younger children, and the cross-level interaction effect indicates that within relationships with a small age difference, the children give more support. The remaining variables of the children's characteristics, that is living with parents in the same household, living with a partner, and ADL capacity, do not have any effect. If all the effects are taken together, the children's characteristics do not explain much of the





TABLE 2. MULTILEVEL REGRESSION OF SUPPORT RECEIVING BY PARENTS (PARENTS  $n = 365$ , CHILDREN AND RELATIONSHIPS  $n = 634$ )—CONTINUED

	Model 1: Support Based on Reports Parents							Model 2: Support Based on Reports Children						
	Equation 1		Equation 2		Variance Reduction <sup>a</sup>		Deviance	Equation 1		Equation 2		Variance Reduction		Deviance
	$\beta$	$t$	$\beta$	$t$	LF	LR		$\beta$	$t$	$\beta$	$t$	LF	LR	
Characteristics relationship														
Contact frequency	0.18	5.4***	0.11	3.7***	1.8	6.1	***	0.20	4.7***	0.14	3.5***	5.3	2.2	***
Traveling time	-0.08	-3.1**	-0.06	-2.5*	0.9	1.4	**	-0.13	-3.9***	-0.12	-3.7***	-0.1	2.4	***
Interaction effects of characteristics child and parents														
Gender child $\times$ child lives with partner	-0.01	-0.5	-0.02	-0.7	0.0	0.0		-0.03	-0.7	-0.03	-0.9	-0.4	0.4	
Gender child $\times$ lives with young children	0.07	2.6**	0.04	1.7	-0.1	1.5	**	-0.01	-0.3	-0.05	-1.4	0.2	-0.1	
Gender child $\times$ employment child	0.02	0.8	0.01	0.2	-0.1	0.2		-0.01	-0.1	-0.02	-0.7	-0.1	0.0	
Age child $\times$ age parent	0.03	0.7	0.02	0.5	0.1	0.0		0.07	1.7	0.08	2.0*	0.2	0.4	
Gender child $\times$ gender parent	-0.00	-0.1	-0.02	-0.7	0.0	-0.0		0.02	0.7	0.01	0.3	-0.6	0.4	
Support given by parents <sup>c</sup>			0.40	11.4***	9.8	14.5	***			0.38	10.5***	13.7	8.3	***
Total					44.0	37.6						80.5	20.6	

<sup>a</sup>Reduction of variance (%) at the family (LF) and relationship level (LR). <sup>b</sup>ADL indicates capacity to perform activities in daily life. <sup>c</sup>As reported by parents (support given) and children (support received), respectively.

\* $p < 0.05$ . \*\* $p < 0.01$ . \*\*\* $p < 0.001$ .

differences in support received by parents. We have not found enough evidence to confirm the hypothesis that structural opportunities with regard to the children's characteristics determine the support given to parents. The two factors in the children's lives that are considered important, living with young children and being employed, either have an effect in the opposite direction or do not have any effect.

We also consider relationship characteristics important to the children's structural opportunities to give support. The more frequently the children are in contact with their parents, the more support they give. It is relatively easy for them to help out when they are visiting their parents. The other way around: Visiting is a necessary prerequisite for providing most forms of instrumental support. Traveling time serves to restrict giving support. The longer the children have to travel, the less support they give. We may conclude that relationship characteristics determine support exchanges. For Equation 1, the total explained variance in Model 1 is 32% at the family level and 32% at the relationship level, and in Model 2, 38% and 33%, respectively. As has been noted above, these  $R^2$ -like measurements do not differentiate strongly between the two levels of analysis.

What differences occur when the support given by the parents is added to the equations? Our third hypothesis is that in parent-child relationships, the support given by parents influences the support they receive. The strong effect of support-giving in both models indicates the mutual interdependence of giving and receiving support. With the introduction of support given by parents in Equation 2, a number of effects in Equation 1 have been modified. The effect of the norm "children ought to give support to their parents" loses its significance. Parents' giving support to their children legitimates the expectations of receiving support from their children. The effect of the children's need for support is no longer significant in Model 1. Here, we assume that the positive effect of children in need of support giving more support to their parents—contrary to the expectations—is a spurious relationship: Differences in the children's need for support and the parents' receiving it can be explained by differences in the parents' giving. This makes it possible to also understand another effect in Equation 1 that is contrary to the expectations, that is, that daughters with young children give more support than other children. In Model 2, if support given is introduced into the equation, the ADL capacity of the parent becomes significant. There

seems to be a negative direct effect (children give less support if parents have a good ADL capacity) and a positive indirect effect (parents with a good ADL capacity give more support and thus also receive more support). In the second equation, these effects have been broken down, resulting in a stronger effect of ADL capacity. The importance of support-giving by the parents to the amount of support they receive is illustrated by the increase of explained variance from Equation 1 to Equation 2. For Equation 2, the total explained variance in Model 1 is 43% at the family level and 43% at the relationship level, and in Model 2, 49% and 44%, respectively.

For the support exchanges, reports on parents and of children are available, and we have constructed two models. There are three striking differences between these models. First, compared with Model 1, based on parent reports, in Model 2, there is a greater reduction of variance at the family level (81% vs. 44% in Model 1) and a smaller one at the relationship level (21% vs. 38% in Model 1). Second, the characteristics of the parents at the family level result in about 25% reduction of the variance in Model 1 and 54% in Model 2. The characteristics of the children at the relationship level result in an 11% reduction of the variance in Model 1 and 5% in Model 2. Third, compared with Model 1, the support given by parents in Model 2 results in a greater variance reduction at the family level and a smaller one at the relationship level.

In sum, children's reports provide more information on differences between parents and their families than parents' reports, and parents' reports provide more information on differences between (relationships with) the children of one family than children's reports. On the basis of these differences, we conclude that the reports on support exchanges especially take into account the characteristics of *the other party* in the relationship. However, there is also a great deal of similarity between the two models. For most of the characteristics of the parent, the child, and their relationship with each other, there are similar effects on parents' receiving support. We may therefore conclude that to a large extent, the parents' and children's perception of the support given to parents is related to the same characteristics.

#### DISCUSSION

The research focuses on whether norms and structural circumstances determine the instrumental support adult children give to their elderly parents

as perceived by the parents and children. Three aspects of the design of our study differ from most other studies on support exchanges in parent-child relationships. First, we do not focus exclusively on parents who are impaired or in need of assistance, as many studies do, an aspect that was also criticized by Mancini and Blieszner (1989). We assume that most parents are active and quite able to give support to their children. This may give a more general perspective on support exchanges between adult children and their parents.

Secondly, we use two measurements of the dependent variable: We examine the giving and receiving of support as reported by both parties in the relationship. Two recent studies (Eggebeen & Davey, 1998; Kaufman & Uhlenberg, 1998) argued for such an approach. There was only a moderate correlation between the two reports. As in other studies, we observed a tendency on the part of support givers to claim to give more support than recipients acknowledge receiving, although this is limited for the support given to the parents. Taking both reports into account makes it possible to detect specific observer bias that detracts from the validity of the reports. To explain discrepancies between data collected from two people about their relationship, one might then assume they have different perceptions of reality. Individuals who operate in different social situations might observe and interpret their relationship in different ways. It is often believed that reports on support exchanges are subjective and reflect the reporter's circumstances. For example, Bond and Harvey (1991) argued that parents might underestimate the amount of support received to maintain a sense of independence and that children might overestimate their giving because it interferes with their regular life. However, we have observed that the other's circumstances are taken into account. The reporting in a relationship seems to be more of a relationship characteristic than the characteristic of a person. In the data collection, the parents report on their exchanges with various children by answering one question for all the children in the study (the children are listed with the response categories after their names). This procedure was introduced to identify differences across the children. However, the results with respect to the variance decomposition, that is, the small variance at the relationship level for the parents' reports, suggest that the parents are not likely to differentiate. However, if differences are reported, they are relatively strongly related to differences across children's circumstances, such as differences in children's need of

support. This is congruent with what Bedford (1992) labels the norm of fairness, which implies that parents do not necessarily respond equally, but they do respond fairly to their children's needs. As to the children's reports, despite the relatively small variance in support given to parents at the family level, this variance is much stronger as regards characteristics of the parent, in particular the children's perception of the parents' need for support, than in the parents' reports. Variance at the family level can be examined by studying parents of different families. However, it seems that children are able to assess their parents' situation more objectively than the parents themselves, and children link the support they give with this assessment. These differences in the reports on support-giving and support-receiving do not, however, exclude the possibility of efficiently interpreting our results: We observe many congruencies across the parents' and children's reports with respect to the factors that influence the parents' receipt of support.

A third difference of our study is that for many parents, we have more children in our sample. Unfortunately, we do not have data for all their children, since we concentrated on children who were identified by their parents as someone they had a frequent and important relationship with. This might bias our results, because children not in the study might have norms and support exchanges different from those in the study. However, the availability of data on relationships with more children may have consequences. We will discuss this with respect to our finding that daughters and sons give approximately the same amount of support to their parents, which accords to the findings of Kaufman and Uhlenberg (1998) but deviates from observations in other studies. Stoller and Earl (1983) and Dwyer and Coward (1991) observe that daughters give instrumental support. These findings might be related to the use of a gender-specific instrument, as Dwyer and Coward point out. Their instrument solely concentrates on help with domestic chores. Since daughters are traditionally more focused on these tasks, it is not surprising that a gender-based difference should have been observed. Blieszner and Hamon (1992) noted that sons and daughters give different kinds of support: Sons give advice and help with financial matters; daughters help with domestic chores. Advice and help with domestic chores were both represented in our instrument, so we categorized the type-specific support by sons and daughters accordingly. Our observation that there are no gender-based differences might be related to sample differences. The parents in our

study were well and were not selected because they received care, in contrast to the parents in the other studies. However, the lack of gender-based differences might also be related to the fact that we include more than one child of the same parent in the study. Many studies confine themselves to the relationship with the primary support-giving child. Studying the relationships with a number of children in about half the families in this study has enabled us to compare the support given by daughters and sons in the same family. It is preferable to evaluate gender-based differences with this design, that is, more than one child or even all the children. A daughter not being the most supportive child might give the same or even less than a son. If this is the case, the gender-based difference is limited to a subset of the children.

The amount of support received by parents depends on circumstances in the parents' lives—or at any rate in the lives of elderly parents, parents with a poor ADL capacity, parents with a great need for support, and parents without a partner or whose partner has a poor ADL capacity, do in fact receive more support. Mothers receive more support. This is congruent with the observations by Rossi and Rossi (1990) and Kaufman and Uhlenberg (1998), who noted that more extensive support flows in both directions between mothers and children than between fathers and children at all points of life. Children characteristics are of importance, but they explain less variance than the parent characteristics. We have already noted the absence of a gender-based difference. With regard to whether or not children are employed, there is no effect on the amount of support received by parents. Our results are in keeping with those of Brody and Schoonover (1986) and Stoller (1983), who observe that employed daughters do not diminish the support they give to their parents; they merely shorten their leisure time. Labor-force participation by women, particularly married women, has been traditionally very low in the Netherlands, as compared with surrounding and economically comparable countries (Pott-Buter, 1998). Although labor-force participation by Dutch women has increased for married women from 10% in 1950 to 41% in 1990, it is still very low. The participation in other Western European countries is higher, ranging from 44% in France to 79% in Sweden. Moreover, most of the women's jobs in the Netherlands are part-time. In 1993, only 6% of the mothers with children under the age of 10 were employed full-time, 40% worked part-time, 5% were unemployed, and 49% were full-time housewives. Women's full-time em-

ployment in other Western European countries ranges from 18% in the UK to 48% in Denmark. These figures illustrate that Dutch adult women have relatively numerous opportunities to assist their parents. In such a situation, the time pressure on married sons might be limited. We have not been able to investigate whether children's structural circumstances become a constraint if their parents need support over a longer period. Future research may reveal how conditions in the lives of adult children and their parents' need for support are related over a longer period of time.

Our results show that if children or parents endorse the norm that children ought to give support to their parents, the parent receive more support. It is evident that norms play a role in these relationships, as has been observed by other authors (Rossi & Rossi, 1990; Stein, 1993). There may be interplay with certain structural circumstances of adult children. For example, if children are not able to give their parents support because they are employed or have young children, differences in their norms on support giving are not crucial. However, in addition to the norms, parent characteristics, relationship characteristics such as contact frequency and traveling time, and the support given by the parent are the most important determinants for the support the parents receive. Controlled for the parent characteristics, the effect of norms becomes less important. This suggests that there is interplay between norms on support giving and parent characteristics. It may be that norms are not effective until situations come up where the elderly parent needs support. Evidence from a study by Eggebeen and Davey (1998) supports this. They observed that parents who expected support from their children did not receive more support than other parents when there were negative life transitions.

Children's support-giving to their parent is determined by reciprocity. However, the level of reciprocity may vary to a large extent from one family to the next. The more parents gave in the past, the more support they now receive. Daughters with young children and children with poor ADL capacity gave a great deal of support but also received more support from their parents. This reciprocity is also effective on the normative dimension: If parents or children feel that children ought to give support to their parents, more support is exchanged in both directions. Eggebeen and Davey (1998), Ingersoll-Dayton and Antonucci (1988), and Lee et al. (1994) argue that relationships in families are characterized by life-course reciprocity, in which exchanges balance out over lifetime. Our

results show, however, that altruism (children's giving contingent on the need of the parent) and direct reciprocity (children's giving contingent on parent's giving) are also important determinants of the parents' receiving support.

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